

# **APPARATUS AND METHOD FOR SUPPRESSING MECHANICAL RESONANCE IN A MASS TRANSIT VEHICLE**

## **ABSTRACT OF THE DISCLOSURE**

A mass transit vehicle traction motor control system includes an automatic control block for receiving and processing a tachometer signal having a first resonance signal superimposed thereon to produce a rate request signal having a corresponding second resonance signal superimposed thereon. A filter is provided for decreasing an amplitude of the second resonance signal whereupon the rate request signal is isolated therefrom. A communication and control block and a propulsion and control block co-act to process the isolated rate request signal to produce a speed control signal that is configured to cause a traction motor of a mass transit vehicle to provide motive force to the mass transit vehicle at a rate related to the value of the speed control signal.